Message

From: Lindstrom, Andrew [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=04BF7CF26AA44CE29763FBC1C1B2338E-LINDSTROM, ANDREW]

Sent: 10/31/2019 7:37:16 PM

To: 'Post, Gloria' [Gloria.Post@dep.nj.gov]

Subject: FW: Samples in Paulsboro

Gloria,

Please see the exchange below.

Tim and I have been trying to set up a follow on meeting with the Rutgers folks after our meeting with you all at DEP on December 9.

It turns out Rob Laumbach won't be able to meet with us on the 10th but Cliff might be able to.

Please let me know what you think we should do. Can I call you sometime tomorrow morning to discuss this?

Thank you,

Andy

From: Clifford Weisel <cpweisel@eohsi.rutgers.edu>

Sent: Thursday, October 31, 2019 1:59 PM

To: Buckley, Timothy <Buckley.Timothy@epa.gov>; Robert Laumbach <laumbach@eohsi.rutgers.edu>

Cc: Lindstrom, Andrew < Lindstrom. Andrew@epa.gov>

Subject: Re: Samples in Paulsboro

I am in on December 10, though don't have as extensive knowledge about the plans for the CDC grant as Rob. I checked with Shahnaz and she is generally getting about 1ml of serum extract from the study we are still doing through the beginning of next year (about 70 subjects left, the majority will be collected in December). I have not heard back from Tina Fan yet as to whether NJDOH has an issue in splitting the sample and the minimum amount they need for their analysis. Should I pursue trying to be able to split the sample? If so, what volume do you need and how should it be stored until it is shipped?

Cliff

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From: Buckley, Timothy < Buckley. Timothy@epa.gov>

Sent: Thursday, October 31, 2019 1:50 PM

To: Robert Laumbach < !aumbach@eohsi.rutgers.edu ; Clifford Weisel cpweisel@eohsi.rutgers.edu >

Cc: Lindstrom, Andrew < Lindstrom. Andrew@epa.gov >

Subject: RE: Samples in Paulsboro

Shoot. My luck has run out.

Tim

From: Robert Laumbach < laumbach@eohsi.rutgers.edu >

Sent: Thursday, October 31, 2019 1:49 PM

To: Buckley, Timothy <<u>Buckley.Timothy@epa.gov</u>>; Clifford Weisel <<u>cpweisel@eohsi.rutgers.edu</u>>

Cc: Lindstrom, Andrew < Lindstrom. Andrew@epa.gov>

Subject: Re: Samples in Paulsboro

Hi Tim,

Very interested in meeting. Unfortunately the timing is not good, as I have a meeting all morning on Dec. 10 at the NJDEP for their SAB. I am on the agenda to give a report on citizen science initiatives.

Rob

From: Buckley, Timothy < Buckley. Timothy@epa.gov>

Sent: Thursday, October 31, 2019 9:30 AM

To: Clifford Weisel < cpweisel@eohsi.rutgers.edu >; Robert Laumbach < laumbach@eohsi.rutgers.edu >

Cc: Lindstrom, Andrew < Lindstrom. Andrew@epa.gov>

Subject: RE: Samples in Paulsboro

Cliff and Rob,

It is looking like arrangements to visit NJ DEP on Monday 9 December are firming up. In an ideal world, we would combine this visit with a visit to Rutgers to talk about our work in the context of your work/plans. Can you let me know if you would be available to meet with us at Rutgers on Tue 10 Dec?

Thanks.

Tim

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EMAIL: buckley.timothy@epa.gov

From: Lindstrom, Andrew < Lindstrom. Andrew@epa.gov >

Sent: Tuesday, October 22, 2019 9:55 AM

To: Clifford Weisel cpweisel@eohsi.rutgers.edu>

Cc: Buckley, Timothy < Buckley. Timothy@epa.gov>; Robert Laumbach < laumbach@eohsi.rutgers.edu>

Subject: RE: Samples in Paulsboro

Cliff,

It is good to hear from you.

We've been working with NJ DEP since 2016 on a project to clarify what's happening with PFAS in the southwestern part of the state. DEP originally asked for help in finding the source of PFNA, which was presumed to be at least partially attributable to Solvay, and to determine if there was any evidence to suggest that airborne emissions where responsible for the environmental distributions that have been documented. DEP was also interested in learning about any new "replacement" compound that has been put in use after the Stewardship Agreement phased out long-chained carboxylic acids. I've attached a copy of our draft study plan above to give you an idea of the scope of this effort.

I think we've pretty much finished the targeted and nontargeted analyses for the water, soil, and plant samples collected in this study and we're starting to write up some papers now. We're hoping to arrange a visit to DEP in December to brief their upper management and science staff on our findings and to begin working with them to think about any follow-up sampling that may be necessary.

In what we've done so far we've found that C9 (PFNA), C11, and C13 are coming from Solvay and that airborne emissions where a significant pathway for environmental distributions of these compounds. We've also found the replacement materials that I think Gloria mentioned in her talk (ChloroPerfluoroPolyEtherCarboxylicAcids, CIPFPECAs, CAS 329238-24-6) are also distributed around the plant and that airborne emissions of this set of compounds (9 congeners) play a key role in regional distribution. We don't have a standard for this new group of compounds, but the high-resolution data set and the overall coherence of all aspects of the data provide very compelling evidence that this identification is correct. The single chlorine atom in new structure is a key diagnostic element.

Given that we've detected the CIPFPECAs in many important environmental media in the region, we are of course concerned that there may be ongoing human exposures. Analysis of regional blood samples could help us quickly determine if exposure has occurred. As Gloria probably also pointed out, given their similarities to traditional long-chain carboxylic acids (like PFNA), we'd expect these compounds to have long biological half-lives and quite possibly some significant toxicity. We greatly appreciate your willingness to look into whether it may be possible to share some of the serum samples from your current study with NJ DOH. If the IRB language allows sharing of these samples for further nontargeted PFAS analysis, I hope we can talk sometime about what kinds of things we could do together with these samples.

I've also written to Rob Laumbach about the new CDC (ATSDR) study that they are gearing up for and he indicated that he was interested in learning about our ongoing NJDEP study and the potential for collaboration between the EPA and their new effort. If we can arrange a site visit with NJ DEP in early to mid-December, we would also be very interested in meeting with you and Rob to brief you on our findings and to explore how we might work together in the future.

Once we have some tentative dates for our visit with NJ DEP we'll let you know and try to find a time either before or after that meeting to stop by and brief you and Rob on our ongoing activities in New Jersey. I think there's a lot of overlap between with these three efforts and we should be looking into how we can work together to serve the needs of this community.

Thank you very much,

Andy

From: Clifford Weisel <cpweisel@eohsi.rutgers.edu>

Sent: Friday, October 18, 2019 4:06 PM

To: Lindstrom, Andrew < Lindstrom. Andrew@epa.gov>

Subject: Samples in Paulsboro

Dear Andy

When I was at the last BOSC meeting and saw the efforts being done at EPA to characterize the untargeted PFAS I mentioned that we were collecting samples in Paulsboro, NJ for PFNA and other PFAS with the analyses being done in the NJDOH labs. I raised the possibility of collaborating with your group to provide samples for

the types of analyses you were doing. Gloria Post was here this past week and said that you were working with NJDEP to examine environmental samples in that part of NJ, but were not currently doing blood samples from subjects living there. We are about half through of our NJDOH project's final year of blood collection. We will be collecting blood samples from about another 50 individuals over the next four months. If you might be interested in some serum samples to analyze, I will check with NJDOH to make sure that they have no problems in splitting some of the serum and with our IRB to make sure that there are no issues with a second lab analyzing de-identified samples from the study since we have told the subjects we were analyzing their blood for PFAS.

You might also know that we, with Rob Laumbach as the PI, received one of the CDC grants as part of their Multi-Site study that is just beginning https://www.cdc.gov/media/releases/2019/p0923-cdc-atsdr-award-pfas-study.html There was supposed to be opportunities to do special studies within that program. The study is tentatively scheduled to be in the field in the end of 2020 to 2021. If you might be interested in collaborating with us on that study in order to provide you samples, I will work with Rob to approach CDC to determine the options.

Cliff

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